

Notice of Allowability

Application No.

10/768,573

Applicant(s)

GUALANDRI ET AL.

Examiner

Jung (John) Hur

Art Unit

2824

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Preliminary Amendments, filed 29 January 2004 and 17 August 2004.
2. ☒ The allowed claim(s) is/are 43-63 and 65-67.
3. ☒ The drawings filed on 29 January 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 1/29/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other search history.

RICHARD ELMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

DETAILED ACTION

Information Disclosure Statement

1. Acknowledgment is made of applicant's Information Disclosure Statement (IDS) Form PTO-1449, filed 29 January 2004. The information disclosed therein was considered.

Preliminary Amendments

2. Acknowledgment is made of applicant's Preliminary Amendment and Supplemental Preliminary Amendment, filed 29 January 2004 and 17 August 2004, respectively. The changes and remarks disclosed therein were considered.

Per these amendments, claims 43-63 and 65-67 are pending in the application.

Drawings

3. The replacement drawing sheets for Figures 1-7 were received on 29 January 2004. The drawings on these replacement sheets are acceptable.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

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5. Authorization for this examiner's amendment was given in a telephone interview with Mr. Michael Rahman on 28 October 2004.

6. The application has been amended as follows:

In the amendment to the specification, filed 29 January 2004, in the paragraph under the heading "CROSS-REFERENCE TO RELATED APPLICATION," a phrase --, now U.S. Patent No. 6,714,458-- has been inserted after "2002" to update the status of the parent application.

In claim 46, "claim 43" has been replaced with --claim 45-- to correct the antecedent basis problem.

In claim 47, "claim 43" has been replaced with --claim 45-- to correct the antecedent basis problem.

In claim 48, "claim 43" has been replaced with --claim 46-- to correct the antecedent basis problem.

In claim 50, "claim 43" has been replaced with --claim 49-- to correct the antecedent basis problem.

In claim 51, "claim 43" has been replaced with --claim 49-- to correct the antecedent basis problem.

In claim 52, "claim 43" has been replaced with --claim 50-- to correct the antecedent basis problem.

In claim 56, line 5, "a n-channel threshold voltage" has been replaced with --an n-channel threshold voltage--.

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In claim 61, "discharge circuit" has been replaced with --flash memory device-- to correct the inconsistent preamble.

In claim 62, "discharge circuit" has been replaced with --flash memory device-- to correct the inconsistent preamble.

In claim 62, before "further", --wherein the discharge circuit is-- has been inserted.

Allowable Subject Matter

7. Claims 43-63 and 65-67 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 43, 56, 59 and 63, the prior arts of record do not disclose or suggest a discharge circuit or a flash memory device or a method as recited in claim 43, 56, 59 or 63, and particularly, coupling the array source to the p-well drive and discharging the p-well drive and the array source to the first voltage level (specifically, an n-channel threshold voltage) in the first mode (both in response to the first discharge signal), and discharging the p-well and the array source to the second voltage level (specifically, ground) in the second mode (in response to the second discharge signal).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tanzawa et al. (U.S. Pat. No. 5,828,621) discloses an erase operation.

Jinbo (U.S. Pat. No. 5,907,506) discloses a discharge circuit for erase operations.

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Chung (U.S. Pat. No. 6,031,774) discloses a discharge circuit for erase operations.

Kaya et al. (U.S. Pat. No. 6,646,925) discloses a discharge method after an erase operation.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung (John) Hur whose telephone number is (571) 272-1870.

The examiner can normally be reached on M-F 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on (571) 272-1869. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jhh